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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,280	07/23/2001	Jeremy Stein Cohen	00982.0004.NPUS00	5634

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EXAMINER

BAYERL, RAYMOND J

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/912,280

**Applicant(s)**

COHEN ET AL.

**Examiner**

Raymond J. Bayerl

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 37 is/are pending in the application.
- 4a) Of the above claim(s) 16 - 27, 31 - 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 15, 28 - 30, 33 - 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001, 14 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6. 6) ☐ Other: \_\_\_\_\_

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1. Claims 16 – 27, 31 – 32 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, responsive to the restriction requirement mailed 3 March 2004 (paper #7). Election was made **without** traverse in Paper No. 8, received 5 April 2004. Action as to the merits of the application after election follows below.
2. Applicant is reminded of the proper language and format for an abstract of the disclosure. It should avoid using phrases which can be implied, such as “The present invention” (see abstract lines 4, 5, 7, 8, 10, 14).
3. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase “said plurality of labels” appears at line 3 without clear antecedent basis.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 28 – 30, 33 – 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al. (“Chen”; US #6,684,206 B2).

As in independent claim 28's "apparatus for analyzing transaction data", Chen's OLAP-BASED WEB ACCESS ANALYSIS produces multi-dimensional summary information, based on the web log records (Abstract) that are obtained as "label" data that identify the "transaction" activity collected at data warehouse 120 (fig 1; col 4, lines 14 – 46). In particular, Chen teaches determining the volume and distribution of hits for target sites, dimensioned by referring site and time (col 6, lines 19 – 24). By the use of cubes that represent multidimensional Web access volumes (col 10, line 38 – col 11, line 20), Chen therefore permits a "label of interest" to be evaluated as to "one or more adjacent labels performed before or after said label of interest", since this alternative phrase is met by noting the referring sites in the web log records (e.g., the "label" "performed before...said label of interest"). Central to Chen is "presenting said RB transaction data" on the basis of a "label of interest".

The web log records in Chen specifically refer to "pages", and in denoting the referring sites, they are descriptive of "clickstream" events that result in individual usage of the servers involved (claim 29). Because a dimension in Chen can represent multiple such pages on its axis, "selecting a plurality of individual labels" is permitted (claim 30).

The "method of aggregating data" by "creating a COLAP-graph representation" in independent claim 33 is anticipated by Chen because of the application of OLAP techniques to user web-browsing records (the progress from referring sites to target sites). These are the "Clickstream" records in applicant's disclosure of "COLAP".

As noted above with respect to independent claim 28, the Chen web log records are "transaction data" (claim 34), and in the process of developing the multidimensional

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representation, Chen will engage <sup>in</sup> "storing said COLAP-graph on a computer readable medium" (claim 35). The Chen OLAP interpretation of web log records is adapted to the individual study at hand, and thus reasonably reads upon the "hybrid COLAP graph" of claim 36. Please note that in Feature Ranking, Chen organizes the "COLAP graph" so as to study those pages most active. R13

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1 – 15, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Boyd et al. ("Boyd"; US #6,317,787 B1).

While the Chen OLAP database can handle the situation of referring sites, as found in web log records, "analyzing transaction data" by using "labels...performed

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before said first label” and “labels...performed after said first transaction” (independent claim 1) is not **explicitly** shown in the disclosure of Chen.

However, Boyd, in ANALYZING WEB-SERVER LOG FILES, works with traffic data hits that are read out and correlated in the chronological order in which the hits were generated (Abstract; col 6, lines 42 – 64). Thus, hits are considered both “before” and “after” a given “first transaction”.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of applicant’s invention to develop a Chen-style presentation of “said first set of transaction data”, considering a sequence of hits over time as per Boyd, for this permits a broader study in Chen of usage information.

Claim 2’s “pages” and “clickstream data” reads upon Chen, as noted above with respect to claim 29. A “session” is described in the aggregate of the Chen/Boyd combination, as in claim 3, since time sequence is added to the ordering of Chen’s hits, by Boyd’s chronological consideration.

Chen cannot avoid being “graphical” in the final “representation” of the multidimensional cube results (claim 4), and using a “single screen” (claim 5). To produce the aggregated result in Chen, “measurement calculations” must be performed on the web log records (claim 6), and “before the step of presenting” (claim 7).

Chen’s cube is clearly a “data structure” (claim 8), and as noted above with respect to claim 33, this is a “COLAP-graph data structure” (claim 9), stored “on a computer-readable medium” (claim 10). The “hybrid COLAP-graph data structure” of claim 11 is treated above in the discussion of claim 36. The “multidimensional arrays”

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(claim 12) are found in Chen's multidimensional cube, while adaptation as per Boyd will result in "individual transactions" which "are ordered" (claim 13), and in a "chronological" way (claim 14).

The consideration of a "subset of said plurality of labels", as appears in independent claim 15, reads upon Chen's consideration of plural items along a dimension, this then being obviously extended to "labels performed before" and "after any of said subset of transactions" as per Boyd. A similar line of reasoning applies to independent claim 37, with the "COLAP-graph" being taught by Chen's analysis of web log records.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining US Patent documents made of record (see attached form PTO-892) relate to various techniques for analyzing databases such as might represent "transaction" events.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond J. Bayerl whose telephone number is (703) 305-9789. The examiner can normally be reached on M - F from 10:00 AM to 5:00 PM.


11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached on (703) 308-3116. All patent application related correspondence transmitted by FAX **must be directed** to the central FAX number (703) 872-9306.

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12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
RAYMOND J. BAYERL  
PRIMARY EXAMINER  
ART UNIT 2173

27 April 2004